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SLOPES & SETBACKS

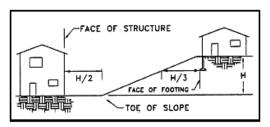
Liberty Lake Critical Areas Ordinance and the Uniform Building Code regulate construction or other activities on or adjacent to slopes. Areas containing soils prone to erosion or other geological hazards can be identified on maps displayed within the offices of the Liberty Lake Planning and Community Development Department. This handout addresses the proper placement of building foundations in relation to adjacent slopes. If you are considering building on or near a slope of 3 Horizontal to 1 Vertical, (33%), the following information may be helpful. All material presented is in compliance with the Uniform Building Code (UBC), Chapter 18.

A building's clearance, (horizontal distance from an ascending or descending slope), is known as its "setback". Setbacks are required in most situations where a structure is to be built near a slope. This important regulation is a safety measure devised to protect the public and more specifically, the home owner, from the dangers of landslide, slope erosion, and foundation displacement.

Note: The building official may approve alternate setbacks, however, an investigation of materials, slope, load intensity and erosion, along with recommendations prepared by a qualified engineer may be required.

- 1. For a structure at the base of a slope, the setback must be a distance no less than ½ the value of the slope's height. However, this distance need not exceed 15'. The setback should be measured from the face of the building to the toe of the slope. See *Figure 1*.
- 2. For a structure at the top of a slope, the setback must be a distance of at least 1/3 the value of the slope's height. This distance need not be more than 40' maximum. In this case, the setback should be measured from the face of the footing to the slope. See *Figure 1*.

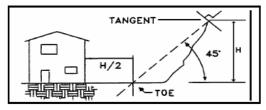
Figure 1.



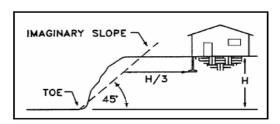
NOTE: If the slope exceeds 1 Horizontal to 1 Vertical, either a special toe or an imaginary slope must be used, depending on the structure's location. The new positions are calculated and can be figured in the following manner:

TOE - Draw a plane tangent to the slope at an angle of 45° to the horizontal. The point at which the plane intersects the ground surface is considered the toe.

See *Figure 2*. Figure 2.



TOP - Draw a plane from the toe of the slope at an angle of 45° to the horizontal. The required setback should be measured from this imaginary slope. See *Figure 3*. **Figure 3**.



For more information or an appointment contact: Liberty Lake Planning and Community Development 1421 N. Meadowwood Lane Liberty Lake, WA 99019 (509) 755-6707